

**STATE OF VERMONT
PUBLIC SERVICE BOARD**

Petition of Green Mountain Power Corporation,	)	
Vermont Electric Cooperative, Inc., and	)	
Vermont Electric Power Company, Inc., for a	)	
certificate of public good, pursuant to 30 V.S.A.	)	
Section 248, to construct up to a 63 MW wind	)	
electric generation facility and associated	)	Docket No. 7628
facilities on Lowell Mountain in Lowell,	)	
Vermont, and the installation or upgrade of	)	
Approximately 16.9 miles of transmission line	)	
and Associated substations in Lowell, Westfield	)	
and Jay, Vermont.	)	

GREEN MOUNTAIN POWER CORPORATION'S REPLY BRIEF
RE: NOISE MONITORING PLAN

This Reply Brief is submitted by Green Mountain Power Corporation ("GMP"), in response to the brief of the Towns of Albany and Craftsbury ("Towns") and Lowell Mountains Group, Inc. ("LMG") concerning GMP's proposed Noise Monitoring Plan ("Plan").

In its Brief, GMP demonstrated why the Plan is consistent with the requirements of Condition 41 of the May 31, 2011 Order ("May 31 Order") and Certificate of Public Good ("CPG") in this project and should be approved. In the Towns and LMG's Noise Brief they do not argue that GMP's Plan is inconsistent with Condition 41, indeed they appear to view consistency with the Docket 7156 noise monitoring plan ("Sheffield Plan") as a given. Instead, the Town/LMG Noise Brief is an extended argument for changing the standard set by the Board to one that the Towns and LMG feel should be imposed. In fact, GMP has already accepted a variety of suggestions from the Towns and LMG and has proposed a plan that is more detailed and more stringent than the Sheffield Plan in several respects. The additional demands of the Towns and LMG are technically unsound, based on faulty premises, and are impractical because they will not produce better results. The Towns and LMG's Noise Brief amounts to a wish list of noise plan features, rather than a response to a compliance filing.¹

For the reasons set forth herein, the Board should reject the new noise plan standards suggested by the Towns and LMG, and approve GMP's Plan as submitted.

¹ The Towns and LMG admit as much in their Brief, when they state that "[t]his Board can and should continue to improve upon the means being employed to protect the public health, and take what has been presented in this case to improve on [the Sheffield Plan]." Towns/LMG Noise Brief at 4.

I. THERE IS NO BASIS FOR CHANGING THE BOARD'S NOISE PLAN STANDARD AS REQUESTED BY THE TOWNS AND LMG

The Board's May 31, Order and CPG Condition 41 requires that Petitioners prepare a noise monitoring plan consistent with the plan recently approved by the Board in Docket 7156. GMP has proposed a plan consistent with the Sheffield Plan, as required by Condition 41. The Department of Public Service ("Department") has reviewed GMP's proposed plan and has found that it is acceptable. DPS Noise Brief at 1. GMP's Plan also contains certain suggested changes proposed by the Towns. However, the Towns argue that the protocol established in the Sheffield Plan be radically altered without any evidentiary justification, other than their apparent belief that GMP will potentially act in bad faith.²

A. GMP and the Towns/LMG Agree on Many Parts of the Noise Plan .

In its May 31 Order, the Board ordered GMP to propose a noise monitoring plan that addressed certain concerns of the Towns and LMG. May 31, 2011 Order at 99. These included monitoring for low frequency sound, more frequent monitoring during the year than originally proposed by GMP, interior monitoring at homeowners' requests and a complaint resolution procedure for the life of the project. *Id.* at 99-100. All of the features required by the Board in that Order are a part of GMP's proposed Plan and the Towns and LMG do not claim otherwise.³

In its July 27, 2011 Order re Five Sets of Compliance Filings, the Board gave GMP, the Towns, LMG and the Department of Public Service ("Department") sixty days to attempt to come to resolution on other aspects of GMP's Plan.⁴ Prior to submitting its Plan, GMP shared a draft with the Towns and incorporated several of the Towns' additional suggestions into the Plan. See Exh. Pet. KHK-5 at 3, comment k4 (ability to do additional monitoring to establish background sound levels or investigate complaints); Exh. Pet. KHK-5 at 3, comment k6 (accepts concept of notification of NRO changes and additional monitoring to the extent reasonable); Exh. Pet. KHK-5 at 6, comments k12, k13, k15 (accepts Towns/LMG's comments, in some

² A quotation from page 2 of the Town/LMG Brief is illustrative: "The Board should be wary of any attempts to hide behind obscured data . . ." Yet there is no evidence in the record that any data has been or will be obscured. GMP's Noise Plan requires that all data produced, including all analysis of any complaints will be submitted to the Board. See e.g. GMP Noise Plan at 10, paragraph 11, and Section 4, generally.

³ See GMP Brief at 2-3.

⁴ July 27, 2011 Order at 6.

Exh. Pet. KHK-5 at 6, comments k12, k13, k15 (accepts Towns/LMG's comments, in some cases with wording modification). GMP and the Towns therefore agree on many aspects of the Plan and the Plan as proposed by Petitioners incorporates many features proposed by the Towns and LMG. The Towns and LMG concede this much.⁵ The Board therefore should view skeptically Town/LMG complaints that "GMP will make no concessions"⁶ or that GMP is "stubborn" or "merely rejects"⁷ Town/LMG demands.⁸ The additional features that the Towns and LMG now demand are based on Town/LMG assumptions that are unsupported by record evidence, and the resulting proposals should be rejected by the Board.

B. The Towns/LMG Want The Board to Order Departures From the Docket 7156 Standard.

The Towns and LMG argue for a variety of departures from the standard set in Docket 7156. These are:

- Compliance with "worst case" sound power levels and atmospheric conditions during testing, rather than the testing during the normal range of conditions experienced on Lowell Mountain (Towns/LMG Noise Brief *passim*);
- Additional monitoring sites at the Gebbie and Dyer-Dunn Inc. camps and at the Christiensen property (*id.* at 13, 20-21);
- A 168 hour "usable" data requirement, during which there is no rain and wind speeds at ground levels below 5 meters per second (*id.* at 4);
- Shorter distances from microphones to structures than used in Sheffield (6 feet rather than 25; *id.* at 19-20);
- A complaint resolution process with arbitrarily shorter time frames for investigation (*id.* at 16 et seq.); and

⁵ See Towns/LMG Noise Brief at 1 "... Towns/LMG and GMP are not as polarized on several of the concerns that have been raised by the noise monitoring plan than previously thought."

⁶ Town/LMG Noise Brief at 5.

⁷ Town/LMG Noise Brief at 3, 4.

⁸ These characterizations are incorrect. The record demonstrates that GMP has adopted Town suggestions where they have had some merit.

- Use of data collected below the lowest outside temperature recommended by equipment manufacturers (*id.* at 21).

In addition to being beyond the scope of the Sheffield Plan, the Town/LMG suggestions are technically unsound. GMP has already addressed many of the points above in its Brief and supplements its critique as set forth below. In summary, the Towns and LMG's additional requests should be rejected.

II. CONTRARY TO THE CLAIMS OF THE TOWNS AND LMG, GMP'S NOISE PLAN IS TECHNICALLY SOUND, WILL PRODUCE A ROBUST, ACCURATE DATA SET, AND IS SUFFICIENTLY PROTECTIVE OF NEARBY RESIDENTS

As supported by its witness, GMP's Plan is technically sound, will produce data of the quantity and quality necessary to demonstrate compliance with the Board's standards and contains a complaint resolution that is more detailed than that in the Sheffield Plan. However, the Towns and LMG suggest changes that are either not supported by the evidence or the standards governing the testing protocol, or that are based on distortions of the record.

A. The Towns and LMG's Request for "Worst-Case" Testing Conditions is Ill-Considered and Unsupported by the Evidence.

One of the fundamental assumptions underlying the Towns/LMG position is that a minimum amount of testing must be done in "worst case" conditions, which they have identified as a 168 hour "usable" data requirement, during which there is no rain and wind speeds at ground levels below 5 meters per second. Towns/LMG Noise Brief at 4. The Towns and LMG also request a "minimum data requirement." Towns/LMG Noise Brief at 10. However, the Towns and LMG, have provided no published standard or any evidentiary support for their particular recipe of "worst case" conditions. Neither in the direct testimony of Les Blomberg, his December 13, 2011 cross-examination, nor in their Noise Brief have the Towns and LMG identified any jurisdiction using the standards that they propose, nor any other wind project where their suggested standards have been used for a similar purpose.

Having adduced no support from the broader scientific community for the standard they advocate, the Towns and LMG instead claim that a 168 hour "useable" data requirement is

"reasonable." In fact the opposite is true. Even if the "worst case" conditions advocated by the Towns/LMG were consistent with the Sheffield Plan, they are unworkable.

The Towns/LMG assume that weather is well-behaved and predictable. As set forth in GMP's Brief, this is incorrect. Even if GMP wanted to, it could not predict wind speeds, rain, temperature, and turbine output accurately enough to implement their recommendations. GMP Brief at 7. Condition 41 requires GMP to set up a system to collect an enormous amount of data –weeks of continuous monitoring over two yearly cycles of four seasons – in order to capture a one-hour maximum sound level. The Board has considered sound monitoring plans before (Docket 7156) and must be aware that in Vermont we have occasional storms, strong winds, and other events that may make data unusable. This is why Condition 41 requires 16 weeks of monitoring. This is also the reason why the Towns/LMG "minimum data requirement" is unnecessary. The Towns and LMG's attempt to make an ambitious plan into an impossible one should be rejected.

In addition, the Towns and LMG "worst case" conditions imply that GMP can know the ground level wind speed at each monitoring location during monitoring periods. There is no record evidence supporting this assumption. Although each monitoring site will contain an anemometer,⁹ the only way to get data from these instruments will be to physically retrieve them and examine wind speed data after the fact. GMP will therefore not know the wind speed at the monitoring sites until after a monitoring period has passed. Moreover, although GMP will have remote data from the wind turbines themselves, there is no direct relationship between wind speed at the hub height of the wind turbines, and wind speed at ground level where the sound monitors will be located. Any suggestion that GMP can know wind speeds at the monitors by looking at hub height winds or wind speeds at the closest National Weather Service station is technically unsound and should be disregarded.

GMP's Plan is consistent with the Sheffield Plan and Mr. Kaliski has testified that it will produce the required data should it be approved.

⁹ GMP Plan at 5.

B. The Towns and LMG's Assertion that Under GMP's Plan, Maximum Project Sound Output Will Not Be Recorded Is Based On A Faulty Premise.

The Towns/LMG argue that if there were a monitoring period where the turbines never operate at maximum sound output, "there is a potential for the monitoring periods not to capture sufficient data when the turbines are operating." Towns/LMG Noise Brief at 6. This "potential" is based on an incorrect assumption. Ken Kaliski testified without contradiction that "for any two-week period there's a hundred percent probability of us capturing the maximum," going on to note that there will be multiple two-week periods under the Plan in which monitoring will take place. Tr. 12/13/2011 at 22 (Kaliski). The Board should reject unsupported assertions to the contrary.

Moreover, LMG and the Towns conveniently ignore the fact that the Board will be able to assess the performance of the GMP Plan as it is being implemented. GMP and its consultants will prepare a report for each monitoring session and each location where monitoring is to be done in response to a resident's complaint. The Board will therefore be able to see whether or not Mr. Kaliski's confidence with regard to recording maximum sound output is well-founded.

C. Contrary to the Towns and LMG's Assertion, GMP's Complaint Resolution Procedure Is Sufficiently Protective and Responsive.

The Towns and LMG suggest that GMP will conduct only strategic complaint investigations and that they will choose to investigate in a way that will minimize the chances of finding a violation. Town/LMG Noise Brief at 17. This accusation is unsupported by the record, and ignores the fact that the Board and Department will review the results of all monitoring conducted by GMP following monitoring. GMP Plan at 10, paragraph 11. There will therefore be sufficient oversight of GMP's complaint resolution procedure to protect project neighbors.

Rather than allowing violations of the noise standard to go unresolved, as alleged by the Towns and LMG in their Noise Brief at 16, the GMP Plan's criteria for noise testing are designed to be efficient. Both the GMP and Sheffield Plans acknowledge and account for the possibility – not addressed by the Towns and LMG – that not every complaint will be the result of project noise. This is the reason for limiting investigation, which is costly and time consuming, to complaints generated when there appears a reasonable possibility that the project

sound level is within 3 dBA of the noise limit set in the CPG. Exh. KHK-6 at 7; GMP Plan at 9, paragraph 6.

The Towns and LMG want to impose testing and complaint resolution on an expedited basis. Towns/LMG Noise Brief at 17. This suggestion is technically unsound. The GMP Plan's complaint monitoring procedure is based on the one approved in Docket No. 7156. Adopting the Town/LMG standards requiring complaint resolution in an arbitrary time frame rather than as set forth in the Plan will result in unnecessary constraints on the ability of GMP and its consultants to conduct tests and will produce less reliable results. The record is clear that GMP's complaint monitoring plan is designed to carefully assess what conditions have created a complaint. Mr. Kaliski stated on cross, "[t]he reason why we had the protocol to have the complainant essentially log the times that they are experiencing high sound levels [is] so that we can get an idea of exactly what situations are causing the complaints." Tr. 12/13/2011 at 55 (Kaliski). Consistent with the Sheffield Plan, the GMP Plan requires that the official results of the monitoring shall be shared with the complainant and the Board; the Department will also receive a copy.¹⁰ In addition, the 1.5 mile buffer zone for complaint monitoring – which also duplicates the zone in the Sheffield Plan – encloses the modeled zone of expected 40 to 45 dB sound level, plus a considerable margin. GMP Plan at 4, Table 1.

The Towns and LMG mischaracterize Mr. Kaliski's testimony by making it sound as if a neighboring home-owner would be suffering violations of the noise standard for up to a year before GMP investigated the complaint. This is not so. The GMP Plan's complaint procedure is designed to reveal the root cause of a complaint by requiring testing in the same conditions as the complained-of noise. GMP Plan at 9. Mr. Kaliski's testimony was that if GMP investigates a complaint, and the survey finds that there is only a noise problem during the winter, then it would not be worth doing sound monitoring in the spring, if the winter season is ended. Tr. 12/13/2011 at 55-56 (Kaliski).

¹⁰ The Department was not a designated recipient under the Sheffield Plan.

The suggestion that a complaining neighbor will suffer for a whole year until monitoring is done is false.¹¹ It is also illogical. If GMP finds that a complaint is related to very narrow conditions that only occur during one season of the year and that season happens to be over, there is no point in monitoring in different conditions.¹² Monitoring within an arbitrary time frame after a complaint rather than when the basic conditions that led to the complaint present themselves will lead to less accurate, less useful data.

The Town/LMG suggestion that GMP will conduct only strategic complaint investigations should be disregarded by the Board.

D. Contrary to the Towns and LMG's Assertion, Microphone Placement Is Appropriate 25 Feet From Structures In Compliance with the Board's Approved Standard.

The Towns and LMG seek departure from the ANSI S12.9 Part 3 standard by placing monitors closer than 25 feet from structures, claiming that this "may" more accurately reflect actual noise levels. Town/LMG Noise Brief at 19-20. This is incorrect. Contrary to the Town and LMG's assertions, departure from the ANSI S12.9 Part 3 standard will not more accurately reflect a neighbor's sound experience; rather, the standard is designed so that the wide variety of possible housing designs and their potential for noise reflection characteristics need not be considered when gathering data. Moreover, the ANSI standard requires that an observer account for reflections from a structure – effectively subtracting them – in the event that a microphone must be placed closer than 25 feet to a structure for some reason.¹³ The Towns and LMG's suggested departure from the standard should be rejected.

¹¹ It is worth noting that nothing in the GMP Plan limits a complainant from making a complaint under only one set of seasonal and meteorological conditions. The Board has made clear that it has set a noise standard that the Project must meet at all times. Indeed, the GMP Plan provides that a resident may request that the Board order additional monitoring at any time and include an explanation of why additional monitoring is needed. GMP Plan at 9. In contrast, the Sheffield Plan allowed for monitoring to take place only once per residence. Exh. KHK-6 at 8.

¹² For example, if GMP finds that complaints only occur when the temperature is below -10 degrees, and they find that this is a rare occurrence that occurs once or twice during a winter, it would not be worthwhile to conduct interior monitoring under any other condition than this, even if it means waiting until the next winter. In this hypothetical, the conditions under which a complaint is generated are not met in any other season.

¹³ ANSI S12.9 Part 3, Section 8.1 (b) states: "Microphones shall be located 7.5 m or farther from any surface where reflections may influence the measured sound pressure levels. If measurements are taken within 7.5 m of

E. Contrary to the Towns and LMG's Assertion, The Dyer-Dunn and Gebbie Camps Should Not Be Additional Monitoring Locations, And The Proposed Christiensen Monitoring Location Should Be Rejected.

The Towns and LMG argue for noise monitoring at the Dyer-Dunn, Inc. ("DDI") camp, and at the Gebbie property, both located in Lowell, Vermont. Towns/LMG Noise Brief at 20. This should be rejected for the following reasons.

First, as demonstrated in GMP's Brief at 10, the Gebbies have waived any noise-related claim concerning the construction or operation of the wind farm.

Second, the Towns and LMG have no standing to raise this issue. The Christiensen property, the DDI camp and the Gebbie property are located in the Town of Lowell,¹⁴ and there is no evidence, and the Towns have not alleged, that monitoring relating to specific locations in Lowell, Vermont¹⁵ to address "spacial variability concerns" is within the scope of intervention of the Towns.¹⁶ With respect to the DDI camp, moreover, the owner is a party in this case and the Board has stated that "LMG will not be permitted to advocate on concerns specific to any of its members who are individual parties to the proceeding." September 3, 2010 Order re Intervention at 11. DDI has not raised this issue in post-CPG compliance proceedings.¹⁷

Third, the issue of monitoring at the DDI camp was rejected in the May 31, 2011 Order. In its April 4, 2011 Reply Brief, DDI complained that GMP had limited its noise analysis to full time residences only and requested that the Board's noise standard be applied to its camp.¹⁸ The Board rejected this argument by requiring GMP to prepare a Noise Monitoring Plan

such surfaces, the effect, if any, of the reflecting surface on the measured data shall be determined from experimental data." 7.5 meters is approximately 25 feet.

¹⁴ See Dyer-Dunn Inc. pf. (Stackpole) at 1. "D-D, Inc. was organized to acquire a parcel of land . . . in Lowell Vermont in 1988." GMP addressed the Gebbie's waiver of any noise claim in its Brief. GMP Brief at 10 and accompanying footnotes. See also prefiled testimony of Daphne Christiansen at 1.

¹⁵ See September 3, 2010 Order re: Motions to Intervene at 15-16 granting permissive intervention to the Towns under Board Rule 2.209(b) and limiting Albany's and Craftsbury's participation on noise to town-specific interests.

¹⁶ Towns/LMG Noise Brief at 13.

¹⁷ See *In re Quechee Water Company, Inc.*, Docket 5460 (Vt. Pub. Serv. Bd., Jun. 27, 1991) at 15. "A fundamental fact is that this Board, like any tribunal, must be able to rely upon counsel - as officers of the court - to present their arguments upon a timely basis, rather than allowing them to be raised after litigation has been completed and all other affected parties have relied upon their silence."

¹⁸ DDI Reply Brief at 3.

consistent with the Sheffield Plan, which unambiguously calls for testing locations at “4 previously identified locations that represent permanent residences and King George School dormitories.” Exh. Pet. KHK-6 at 2. DDI's property, on the other hand, is a seasonal hunting camp rather than a residence.¹⁹ The Board should therefore reject the attempt of the Towns and LMG to modify the monitoring scope of GMP's Plan.

The Towns/LMG suggestion that they have a better monitoring site picked out on the Christiansen property is also without merit. Both Mr. Kaliski's long-term monitoring (Exh. Pet-KHK-2 at 22) and Mr. Blomberg's short-term monitoring (Blomberg pf. at 20) yielded the same daytime L90 of 30 dBA. No testimony was given to suggest, as the Towns and LMG do in their Noise Brief at 9, that choosing Mr. Blomberg's suggested monitoring location would yield their hoped-for 168 hours of data at or below 45 dBA. In any event, whether or not there is a better site on the Christiansen property, GMP will work with the DPS consultant in choosing the best site for monitoring along VT 100 and the resulting choice may be reviewed by a neutral third party

F. The Towns/LMG Request for Exterior Monitoring Below 14 Degrees Fahrenheit Is Not Technically Sound.

The Towns and LMG complain that data taken from its monitoring locations when the temperature is below 14 degrees Fahrenheit will be removed from results. Towns/LMG Noise Brief at 21. This Town/LMG complaint should be disregarded because it ignores the recommendations of the ANSI standard. The 14 degree restriction on exterior monitoring equipment is based on ANSI standards for Type I and Type II sound level meters, rather than a desire by GMP to skew the data in any way. The Towns and LMG state, without citation, that “Mr. Kaliski believes he is tied to a standard in this case that he has apparently not followed in prior monitoring protocols.” Town/LMG Noise Brief at 21. This is a mischaracterization of Mr. Kaliski's testimony, which actually states that the 14 degree Fahrenheit threshold is a requirement for sound level meters themselves, consistent with the ANSI standard for sound

¹⁹ DDI's camp contains a cabin that is used seasonally and leased “during the fall and winter hunting seasons.” DDI August 13, 2010 Motion to Intervene at 2.

level meters. Tr. 12/13/2011 at 110 (Kaliski).²⁰ Moreover, in general winter conditions are the least problematic for testing of complaints, as most Vermonters sleep with windows fully closed below 14 degrees Fahrenheit. Interior sound levels therefore will be low. The Board should allow the 14 degree Fahrenheit standard to remain in the GMP Plan.

G. Contrary To The Request of the Towns and LMG, Board Approval of Microphone Micrositing Is Not Needed.

The Towns and LMG complain that micrositing of monitoring locations is not subject to Board approval in GMP's Plan. Town/LMG Noise Brief at 11. GMP's position is that Board approval is not necessary for micrositing of microphones. In addition to third-party evaluation of its results, and Board and Department will have available for review of all reports generated by the GMP Plan, the landowners at highest risk for a violation of the Board's sound standard may request inside-outside testing and, as noted above, the results of such testing will be made available to the Board and the Department. As the Board made clear during noise plan technical hearings, the Board has set an absolute standard that the Board has found will be adequately protective of human health, which the project must meet. GMP's Plan contains complaint provisions, which will be in effect long after the two-year monitoring period has ended, and will adequately protect the nearest landowners. Further process regarding micrositing of microphones is unnecessary due to the procedural safeguards in place and, if implemented, the Towns/LMG request for further process will result in a waste of time and resources for all involved.

CONCLUSION

For all the above reasons, the Board should find that GMP's Noise Plan complies with the requirements of Condition 41 and is approved without the further modifications requested by the Towns and LMG.

²⁰ The meters' specifications indicate accuracy when the temperature is 14 degrees or higher.

Dated January 27, 2012 at Burlington, Vermont.

GREEN MOUNTAIN POWER CORPORATION

By: 
Benjamin Marks, Esq.
Sheehey Furlong & Behm, P.C.
30 Main Street, P.O. Box 66
Burlington, VT 05402
Tel: (802) 864-9891
Fax: (802) 864-6815